

WO 00/46233

1

Sequenc Listing:

<110> The University of Sydney

<120> Pigment protein from coral tissue

<160> 15

<170> PatentIn Ver. 2.1

<210> 1

<211> 5

<212> PRT

<213> Acropora aspera, Acropora horrida, Montipora caliculata, Porites murrayensis, Montipora monasteriata, and Porites lobata

<400> 1

Ser Val Ile Ala Lys
1 5

<210> 2

<211> 17

<212> PRT

<213> Acropora horrida

<400> 2

Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
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Val

<210> 3

<211> 231

<212> PRT

<213> Acropora aspera

<400> 3

Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
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35 40 45Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln Cys Gln Tyr Gly Ser
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65 70 75 80Ser Phe Pro Gly Arg Tyr Thr Trp Glu Arg Ile Met Asn Phe Glu Asp
85 90 95Gly Ala Val Cys Thr Val Ser Asn Asp Ser Ser Ile Gln Gly Asn Cys
100 105 110

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2

Phe Ile Tyr His Val Lys Phe Ser Gly Leu Asn Phe Pro Pro Asn Gly
 115 120 125
 Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Asn Thr Glu Arg
 130 135 140
 Leu Phe Ala Arg Asp Gly Met Leu Ile Gly Asn Asn Phe Met Ala Leu
 145 150 155 160
 Lys Leu Glu Gly Gly Gly His Tyr Leu Cys Glu Phe Lys Ser Thr Tyr
 165 170 175
 Lys Ala Arg Lys Pro Val Lys Met Pro Gly Tyr His Tyr Val Asp Arg
 180 185 190
 Lys Leu Asp Val Thr Asn His Asn Lys Asp Tyr Thr Ser Val Glu Gln
 195 200 205
 Arg Glu Ile Ser Ile Ala Arg Lys Pro Leu Val Ala Cys Cys Phe Phe
 210 215 220
 Arg Val Lys Ser Arg His Lys
 225 230

<210> 4
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 <212> PRT
 <213> Acropora aspera

<400> 4
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 Tyr Glu Gly Glu Gln Thr Val Arg Leu Ala Val Thr Lys Gly Gly Pro
 35 40 45
 Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln Cys Gln Tyr Gly Ser
 50 55 60
 Ile Pro Phe Thr Lys Tyr Pro Glu Asp Ile Pro Asp Tyr Val Lys Gln
 65 70 75 80
 Ser Phe Pro Gly Arg Tyr Thr Trp Glu Arg Ile Met Asn Phe Glu Asp
 85 90 95
 Gly Ala Val Cys Thr Val Ser Asn Asp Ser Ser Ile Gln Gly Asn Cys
 100 105 110
 Phe Ile Tyr His Val Lys Phe Ser Gly Leu Asn Phe Pro Pro Asn Gly
 115 120 125
 Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Asn Thr Glu Arg
 130 135 140
 Leu Phe Ala Arg Asp Gly Met Leu Ile Gly Asn Asn Phe Met Ala Leu
 145 150 155 160

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3

Lys Leu Glu Gly Gly Gly His Tyr Leu Cys Glu Phe Lys Ser Thr Tyr
165 170 175

Lys Ala Lys Lys Pro Val Lys Met Pro Gly Tyr His Tyr Val Asp Arg
180 185 190

Lys Leu Asp Val Thr Asn His Asn Lys Asp Tyr Thr Ser Val Glu Gln
195 200 205

Cys Glu Ile Ser Ile Ala Arg Lys Pro Val Val Ala Cys Arg Phe Phe
210 215 220

Arg Val Lys Ser Arg His Lys Tyr Ala Val Ala
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<210> 5

<211> 841

<212> DNA

<213> Acropora aspera

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ctgatttttag cttatagaag taggaacgaa gaagtgtaga caaccttcaa tgattaaact 780
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<210> 6

<211> 841

<212> DNA

<213> Acropora aspera

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cagtacggaa gcataccatt caccaagtac cctgaagaca tccctgacta tgtaaagcag 240
tcattcccg gtagatatac atgggagagg atcatgaact ttgaagatgg tgcagtgtgt 300
actgtcagca atgattccag catccaaggc aactgtttca tctaccatgt caagttctct 360
ggtttgaact ttctctccaa tggacctgtt atgcagaaga agacacaggg ctgggaacce 420
aacactgagc gtctctttgc acgagatgga atgctgatag gaaacaactt tatggctctg 480
aagttagaag gaggtggtca ctatttgtgt gaattcaaat ctacttaca ggcaaggaag 540
cctgtgaaga tggcagggtg tcaactatgtt gaccgcaaac tggatgtaac caatcacac 600
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<210> 7

<211> 18

<212> PRT

<213> *Acropora aspera*, *Montipora caliculata*, and *Porites murrayensis*

<400> 7

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Val Asn

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<211> 25

<212> PRT

<213> *Porites lobata*

<400> 8

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Val	Asn	Asn	His	Tyr	Glu	Phe	Val	Thr
			20					25

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<212> PRT

<213> *Discosoma sp.*

<400> 9

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Arg	Met	Glu	Gly	Thr	Val	Asn	Gly	His	Glu	Phe	Glu	Ile	Glu	Gly	Glu
		20						25					30		

Gly	Glu	Gly	Arg	Pro	Tyr	Glu	Gly	His	Asn	Thr	Val	Lys	Leu	Lys	Val
		35						40				45			

Thr	Lys	Gly	Gly	Pro	Leu	Pro	Phe	Ala	Trp	Asp	Ile	Leu	Ser	Pro	Gln
	50					55					60				

Phe	Gln	Tyr	Gly	Asn	Lys	Val	Tyr	Val	Lys	His	Pro	Ala	Asp	Ile	Pro
65					70					75					80

Asp	Tyr	Lys	Lys	Leu	Ser	Phe	Pro	Glu	Gly	Phe	Lys	Trp	Glu	Arg	Trp
				85					90					95	

Met	Asn	Phe	Glu	Asp	Gly	Gly	Val	Val	Thr	Val	Thr	Gln	Asp	Ser	Ser
			100					105					110		

Leu	Gln	Asp	Gly	Cys	Phe	Ile	Tyr	Lys	Val	Lys	Phe	Ile	Gly	Val	Asn
		115					120					125			

Phe	Pro	Ser	Asp	Gly	Pro	Val	Met	Gln	Lys	Lys	Thr	Met	Gly	Trp	Glu
	130					135					140				

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Ala Ser Thr Lys Arg Leu Tyr Pro Arg Asp Gly Val Leu Lys Gly Glu
145 150 155 160

Ile His Lys Ala Leu Lys Leu Lys Asp Gly Gly His Tyr Leu Val Glu
165 170 175

Phe Lys Ser Ile Tyr Met Ala Lys Lys Pro Val Gln Leu Pro Gly Tyr
180 185 190

Tyr Tyr Val Asp Ser Lys Leu Asp Ile Thr Ser His Asn Glu Asp Tyr
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Thr Ile Val Glu Gln Tyr Glu Arg Thr Glu Gly Arg His His Leu Phe
210 215 220

Leu
225

<210> 10
<211> 230
<212> PRT
<213> Discosoma sp.

<400> 10
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Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
35 40 45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
50 55 60

Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg
65 70 75 80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
180 185 190

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Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
210 215 220

Thr Ala Ala Gly Ile Thr
225 230

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<212> DNA
<213> Artificial Sequence

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<212> DNA
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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: PCR primers

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<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primers

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